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India.

19th February 1987.

Dear Professor Joshua Lederberg.

It was indeed extremely nice of you to take the trouble of responding so very promptly to my letter dated 12th January 1987. Your letter dated 26th January 1987 (bearing New York Post Mark of 28th January 1987) reached me belatedly on the 17th February 1987, possibly due to postal delays at our end. I am very grateful to you for your very valuable suggestions.

I have so far not approached either Sloan-Kettering Institute or NCI, USA, for my project on early detection of cancer. I am not averse to the idea but so far it has not materialized. My recent Visiting Professorship at the University of Rochester Cancer Centre, Rochester N.Y., was for an altogether different topic. It was at the kind invitation of Professor Robert Sutherland, who was interested in six of my new class of radio-sensitizers for hypoxic tumours. I was at Rochester for three months and I believe the trip was of mutual benefit to both Professor Sutherland and myself. Professor Sutherland plans to pursue work with my compounds and he has already submitted a grant application to NCI, proposing to use my compounds in his world famous spheroid model.

Your suggestion of harnessing the help of pharmaceutical concerns is extremely valuable. If the attempts bear fruits it would certainly be a great help in the speedy transfer of laboratory investigation to practical applications in the alleviation of human sufferings. Only the pharmaceutical company would be in a position to produce and provide the reagents required for multi-centre evaluation of early detection of cancer methodology.

Moral support and patronage from a person of your standing would certainly be a great help in seeing the project through various stages of development. If I am not encroaching on your valuable time, I would like to have your continued active association throughout all the phases (and not end with putting me in touch with pharmaceutical company) of the project for alleviation of human suffering.

The principle aim of the project is picking out persons at risk of cancers from the general population long before the person at risk of cancer is even aware of the presence of cancer in his/her body or even before any of the cancer related early warning symptoms motivate him/her to seek medical advice. I am enclosing a brief write-up to aquaint you of the rationale of our approach.

You had raised a querry about the animal experimentations I had mentioned in my last letter. Its chief aim was to determine and demonstrate the lowest number of cancer cells that could be detected by the method. This necessitates working with animals with predetermined tumour loads ranging from single cell to many thousands of cancer cells. Such data at not obtainable in humans. Determination of tumour loads in humans can be obtained upto certain approximations, with the use of two pronged probes mentioned in the enclosed brief write-up.

I am enclosing reprints of two of my published papers and a brief write-up (un-published) for your perusal and comments if any. I am also enclosing my C.V. as suggested by you.

I had taken out a Provisional Patent around 1970 here in India, for the process of exposing tumour-mimetic antigens on normal cell surfaces and their use in immunotherapy of leukemia. Patenting worldwide was a very expensive proposition and beyond our means. Hence it was not done.

I had also obtained permission from the Drug Control Administration of Government of India, for limited use of my preparation (FDNB-tagged cells) in immunotherapy trial in human leukemia cases. We had successfully demonstrated therapeutic responses in over 30 human cases with no toxic side-effects whatsoever.

As an offshoot of the above therapeutic trials, it is possible to produce cytolytic and agglutinating human monoclonal immunoglobulins for use either has passive cytolytic immunotherapy or for scavenging malignant cells from circulation. I have however not pursued this to any great extent but the methodology is available if some one is interested

The procedure that I am proposing for early detection of cancer uses 300 times stronger tumour-mimetic antigens prepared by affinity chromatography method. The proposed cancer detection method is entirely <u>IN-VITRO</u>, requiring about one ml of blood readily obtainable from human subjects in their periodic health check-ups.

I would appreciate hearing your views in the matter at your earliest convenience.

With kind regards,

Encl: As above.

Yours Sincerely,

M.B. Saharabudhe

(M. B. Sahasrabudhe)

To,
Professor Joshua Lederberg
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